

REMARKS

Claims 1-7 are now pending in this application. Claims 1, 4 and 7 are independent claims.

In the Office Action dated December 8, 2003, claims 1-3 were allowed, and claims 4-7 were rejected. Claims 4-6 were rejected under 35 U.S.C. 112 and under 35 U.S.C. 103. Claim 7 was rejected under 35 U.S.C. 102.

Specifically, claims 4-6 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement because, according to the Examiner, the specification does not disclose a receding clamping surface as set forth in claim 4. Claims 4-6 were also rejected under 35 U.S.C. 112, second paragraph, as being indefinite for lack of antecedent basis for "the respective electrode." Additionally, claim 7 was rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,126,658 (Baker). Claim 4 was rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Statutory Invention Registration H1745 (Paraschac) further in view of Baker. Claims 5 and 6 were rejected under U.S. 35 U.S.C. 103(a) as being unpatentable over Paraschac and Baker in view of U.S. Patent No. 5,680,860 (Imran).

Section 112, Second Paragraph

Claim 4 has been amended to overcome the rejection of insufficient antecedent basis for the language "the respective

electrode." This language was eliminated from claim 4 and replaced with "the conductive ablation member."

Section 112, First Paragraph

It is respectfully submitted that claims 4-6 are supported by the written description and the accompanying drawings of the application. As seen in the attached copies of the drawings that were filed with the application, Figure 2 shows a cross section of the triangular-shaped clamping member with an conductive member 53 and insulator 28. The insulator surface, which is the side surface of the triangle, clearly recedes from the conductive member (which is at the apex). Additionally, Figure 9 show a cross sectional view of the jaws 50 and 51 (shaped like the jaws in Figure 2) in the act of clamping tissue.

Further, Figure 32 shows an enlarged cross sectional view of alternative clamping or grasping jaws. Figure 32 illustrates a cross section of the T shaped electrodes 94 and 96, with the upright portion of the electrode protruding through a narrow opening in insulation member 84. As can be seem in Figure 32, insulation member 84 also has a receding clamping surface of varying distance from the electrode.

For the above reasons, it is respectfully submitted that claims 4-6 are fully supported by the written description and the accompanying drawings of the application.

Claims 4-6

As discussed in more detail below, it is respectfully submitted that the subject matter of claims 4-6 is not disclosed or obvious over Paraschac in view of Baker.

The Cited Paraschac Defensive Publication

It is respectfully submitted that Paraschac does not disclose the subject matter of claim 4.

Claim 4 requires grasping jaws with receding clamping surfaces of varying distances from the respective conductive ablation member. Examples of such receding surfaces of varying distances from the conductive member are shown in at least Figures 2, 9 and 32 of the application.

In contrast to the present invention, the insulation layer 26 in Paraschac is not a receding clamping surface of varying distance as set forth in claim 4. In Paraschac, the insulation layer 26 covers the underside of electrode 21, and the edges of layer 26 terminate at a location spaced from clamping surface 27 to leave a small conductive or transition region 29 exposed. The fact that the edges of insulative layer 26 are spaced from the surface 27, does not make it a receding clamping surface of varying distance, for several reasons.

First, the respective clamping surface described in Paraschac is clamping surface 27 (col. 4 line 15-16), and the

edge of the insulative layer is not described or discussed as forming part of the clamping surface. Next, the receding clamping surface of the present invention can help express liquid from between the tissue to enhance formation of ablation lines. No such function or benefit is taught in Paraschac for the thin end edges of the insulative layer 26.

Moreover, even if the end edges of the insulative layer 26 in Paraschac are considered part of a clamping surface, they are merely spaced from the surface 27 and are not "receding" surfaces of "varying distance" from the conductive ablation member - - which denotes a surface that progressively moves back or away from the conductive member, e.g. the sloped sides of the triangle insulator in Figure 2 or the convex/sloped surface in Figure 32. In other words, Paraschac in Figure 3, shows an insulative layer that is not a receding surface of varying distance from the electrode, but a level surface spaced from the electrode. Thus, it is respectfully submitted that Paraschac does not teach or suggest a receding clamping surface as required in claim 4.

As a further reason Paraschac does not anticipate or render obvious the claimed subject matter is that the device described in Paraschac is in the class of devices that are for clamping and coagulating tissue, which tissue may then be severed without substantial blood loss. As such, the device disclosed in Paraschac is not intended to define insulative lines of ablation in cardiac tissue, but regions of complete coagulation to stop or

slow bleeding in tissue that are being severed and employ on or more relatively wide electrodes for current flow.

For the reasons set forth above Paraschac does not disclose or suggest the subject matter of claims 4-6.

The Cited Baker Patent

It is respectfully submitted that claims 4-6 would not have been obvious over Paraschac in view of Baker.

It is also respectfully submitted that there is no suggestion or motivation to add the temperature sensor of the Baker patent to the coagulation clamp of Paraschac. First, the device described in Baker is in the class of devices that are for clamping and welding or sealing vessels. As such, the Baker device is not intended to define insulative lines of ablation in cardiac tissue, instead Baker is intended to complete seal or weld regions of vessels.

Second, Paraschac also does not describe or suggest a clamping device suitable for forming non-conductive ablation lines in cardiac tissue to treat atrial fibrillation, and there is no need or logic to adding a temperature sensor to the Paraschac device. The simple fact that Baker discloses a temperature sensor does not provide any motivation or reason to add such sensor to the Paraschac coagulation clamp to achieve the present invention which differs in structure, purpose and function from both of the above references.

For all the reasons above, it is respectfully submitted that independent claim 4 and dependent claims 5-and 6, which add further features, are not taught or suggested by the cited prior art and should be allowed.

Claim 7

Claim 7 has been amended to clarify the claimed subject matter.

Particularly, claim 7 has been amended to point out that each jaw has a single electrode generally centered on the jaw and a temperature sensors spaced laterally from the electrode, so that in the clamped position the temperature sensors are located on opposite sides of the electrodes as seen in Figure 32. In contrast, the Baker patent Figure 5 discloses a device in which the sensors 72A and 72B will be between the sensors 50A and 50B when the jaw is in the clamping position. For these reasons, it is respectfully submitted that the subject matter of claim 7 is not disclosed or suggested by the cited prior art.

Conclusion

It is respectfully submitted that claims 4-6 are supported by the written description of the application and that these claims would not have been obvious in view of the cited references. Furthermore, it is respectfully submitted that the

subject matter of claim 7 is not disclosed or suggested in the cited references.

For the above stated reasons, reconsideration and allowance of claims 4-7 are respectfully requested.

Respectfully submitted,

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